

ARM Microcontrollers - MCU CM0+,256KFLASH,32KSRAM T&R,USB,ULP, - 100TQFP 85C, GREEN,1.6-3.6V,32MHz

Manufacturers	Microchip Technology, Inc
Package/Case	TQFP-100
Product Type	Embedded Processors & Controllers
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ATSAML22N18A-AUT or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ultra-low-power ATSAML22 based Flashmicrocontrollers (MCU) feature sophisticated power management technologies and consumes 39 $\mu\text{A}/\text{MHz}$ (CPU running CoreMark) in active mode and down to 490nA in ultra low-power backup mode with RTC. In addition to ultra-low-power performance, these devices feature Segment LCD controller, tamper detection, smart card interface, Full Speed USB device, Event System and Sleepwalking, 12-bit analog, AES, capacitive touch sensing and much more.

Supported by MPLAB X IDE and MPLAB Harmony.

Features

ARM Cortex-M0+ CPU running at up to 32 MHz

256KB in-system self-programmable Flash

8KB Flash Read-While-Write section

32KB SRAM Main Memory

Operating voltage: 1.62V – 3.63V

Segment LCD (SLCD) controller

Ultra Low Power Architecture consuming 39 $\mu\text{A}/\text{MHz}$

Idle, Standby, Backup, and Off sleep modes

Battery backup support

Two Performance Levels

Embedded Buck/LDO regulator supporting on-the-fly selection

Peripheral Touch Controller (PTC)

Wake-up on touch in standby mode

Two-pin Serial Wire Debug (SWD) programming, test and debugging interface

Temperature Range - 40°C to 85°C

Peripheral Features:

16-channel Direct Memory Access Controller (DMAC)

8-channel Event System

16-bit Timer/Counters (TC)

One 24-bit Timer/Counters for Control (TCC)

Frequency Meter

32-bit Real Time Counter (RTC) with clock/calendar function

8x32-bit Backup Register

Tamper Detection

Watchdog Timer (WDT)

CRC-32 generator

One full-speed (12Mbps) Universal Serial Bus (USB) 2.0 Device

Up to six Serial Communication Interfaces (SERCOM) including one low-power SERCOM

ISO7816, USART, I2C, SPI

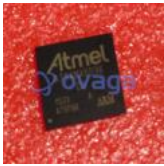
One AES Encryption Engine & TRNG

One Configurable Custom Logic (CCL)

One 12-bit, 1MSPS Analog-to-Digital Converter (ADC)

Two Analog Comparators (AC) with window compare function

Related Products



[ATMega5D36A-CU](#)

Microchip Technology, Inc
LFBGA-324



[ATMEGA32M1-AU](#)

Microchip Technology, Inc
TQFP-32



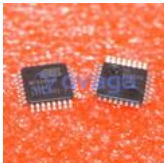
[ATXMEGA128D3-AU](#)

Microchip Technology, Inc
TQFP-64



[ATTINY2313V-10SU](#)

Microchip Technology, Inc
SOIC-20



[ATMEGA64M1-15AZ](#)

Microchip Technology, Inc
TQFP-32



[ATMEGA16L-8PU](#)

Microchip Technology, Inc
PDIP-40



[ATTINY48-MU](#)

Microchip Technology, Inc
VQFN-32



[ATTINY4-TSHR](#)

Microchip Technology, Inc
SOT-23-6